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A CRITICAL ESSAY ON THE ROLE OF PROMOTION IN BOTTLE FEEDING

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Introduction

Caracas, Venezuela, July 1977: In the emergency room of the Hospital de Niños, a large hospital located in the center of the city, lie 52 infants. All are suffering from gastroenteritis, a serious inflammation of the stomach and intestines. Many also suffer from pneumonia. According to the doctor in charge, roughly 5,000 Venezuelan babies die each year from gastroenteritis, and an equal number die from pneumonia. The doctor further explains that these babies, like many who preceded them and those who would follow, have all been bottle fed. He concludes, "A totally breast-fed baby just does not get sick like this."

Poverty, inadequate medical care, and unsanitary conditions make bottle feeding, to quote a government nurse in Perú, "poison" for babies in the developing countries. And yet breast feeding is being abandoned by mothers in these countries. In 1951, almost 80% of all babies in Singapore were being breast fed at the age of three months. Twenty years later, only 5% of all three-month-olds were at the breast. In 1966, 40% fewer mothers in Mexico nursed their six-month-old babies than had done so six years earlier (1).

The end result of this significant change in human behavior is both higher morbidity and mortality rates among bottle fed babies. According to medical reports of malnutrition among Eskimo children in the Baffin Zone in Canada, almost 5% of the Inuit infants born in 1973-74 had to be flown to Montreal for emergency treatment. Doctors there believe one of the major causes for this tragedy is bottle feeding (2). Other better known studies provide further evidence of the relation between bottle feeding and infant malnutrition, disease, and death (3).

Bottle feeding has created a controversy at the center of which are the questionable promotional practices of companies who sell bottles and powdered baby milks in the Third World. Critics believe that promotion of these powders to mothers who do not have the facilities to properly prepare the feeds is, indeed, a deadly way to make a profit. However, despite the increased activity of critics and acknowledgements by industry that improper bottle feeding can be dangerous, sales of infant formulas in poor countries are still escalating.

This problem is well known to PAG readers since the PAG was one of the first groups to bring the situation to the attention of the international health care community. In 1974, the World Health Assembly called for a critical review of company promotion (4), and the issue has been discussed extensively at medical conferences, international seminars, in UN papers, and the like.

In the US recently, considerable interest has centered around a lawsuit against Bristol-Myers Company, makers of Enfamil. The suit was brought by a Roman Catholic order, The Sisters of the Precious Blood, charging the company with making "false and misleading statements" about their overseas promotion and sales of infant formula. The statements appeared in a proxy report to stockholders, which is required by law to be accurate. The Sisters are part of a coalition of church groups called the Interfaith Center on Corporate Responsibility which, since 1974, has been raising the issue of unethical promotion with several US formula manufacturers. The agency had been inspired to take action after reading a study sponsored by the

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Consumers Union and published in the Robert Ledogar book, Hungry for Profits. The study focussed on Latin America and confirmed the findings revealed in another exposé, Mike Muller's The Baby Killer.

In May 1977, a US District Court Judge dismissed the case, stating that the Sisters had not shown that they, as shareholders, had been caused "irreparable harm" by the alleged mis-statements. He declined to comment on the accuracy of the company's proxy report. The nuns are appealing this decision based on the conviction that the affidavits they submitted into court from over 15 Third World countries confirmed their worst fears--that Mead-Johnson formulas were being sold to poor people throughout the Third World. In some cases, hospital records linked infant malnutrition to the improper use of these formulas. The court documents also confirmed the use of promotional activities the church groups consider unethical: visits of milk nurses to mothers, hospital posters, calendars, free samples, inducements and pressures on doctors to use Mead-Johnson formulas exclusively, and totally inappropriate labels. (An example of the latter: in Haiti, where female literacy rates are below 16%, labels on Mead-Johnson tins were written in Spanish and English while the mothers, even when literate, speak and read mainly French or Creole.) (5)

The findings of the lawsuit prompted local consumer advocacy groups around the US to join forces in a coalition called INFAC (Infant Formula Action). After reviewing the controversy, these groups felt it was critical to keep pressuring Nestlé-the largest manufacturer of baby formula in the Third World-to desist from their promotion tactics. Thus, the Minnesota-based Third World Institute, picking up where the Third World Action Group of Switzerland had left off, initiated a consumer boycott. The boycott has been quietly spreading throughout the US. Meanwhile, the church groups, acting in their capacity as stockholders in the US companies, are continuing their efforts to further restrict the promotion these companies engage in.

Since the controversy has gained international prominence, studies and recommendations reflecting many sides of the problem have surfaced. Some deal with the responsibilities of the medical profession, others deal with the role of governments. A majority of the recent studies have focussed on the consumer and consumer behavior rather than on the marketer and the marketer's behavior. This article will isolate the latter factor and attempt to show that marketing practices, by dint of their success and adaptability even when under attack, constitute a significant influence on consumer behavior; and that cessation of product promotion is a vital part of any attempt to reverse the dangerous trend towards bottle feeding.

Infant Food Marketing Strategy

The marketing strategies for infant formula products must be viewed in the broader context of international economic expansion. In order to expand, the corporate economy is continually searching for unexploited markets. As domestic consumer markets become saturated, international companies turn first to other developed countries and finally to their colonies and neo-colonies-the sector now known as the Third World. At first, the search for consumers, both here and abroad, was largely limited to middle- and upper-class consumers. For example, under the banner of "Peacefully Working to Conquer the World", the Singer Sewing Machine Company sought a market among the Latin American middle class by selling them obsolete models of sewing machines, reserving the newer models for the markets at home (6). Most other companies continued to view the Third World as a repository of the raw materials and cheap labor necessary for further domestic industrialization. Marketing abroad was a secondary consideration. Meanwhile, the US companies reserved their major efforts for consolidating the domestic market, and for developing the young science of marketing. In 1901, students of marketing began to analyze a new concept of consumption and class: "the middle class, from

the standpoint of consumption, is more extensive than the middle class according to incomes" (7). In other words, it's what you buy that identifies you, not whether you can afford it. Within 50 years, the marketing "revolution" had taken over.

Fortune magazine heralded this new age with an article entitled "Welcome to the Consumption Community" (8). However, the "Community" of infant formula consumers soon began to shrink as postwar birth rates declined, and the domestic market became saturated. Besides, middle class women in the developed countries felt that they had been deprived of the experience of breast-feeding and began turning to the more natural way. These factors necessitated the push for Third World sales.

The concentrated campaign to attract Third World consumers began in the late 1950's and a body of literature arose to help business conquer this almost virgin territory. For example, the article "Changing Markets and Media in Latin America", published in 1959, advised foreign marketers that, in the absence of a middle class, they should consider the urban poor as an important potential market (9). Businessmen had begun to understand the market potential of a poor population that had many unfulfilled needs. The real needs of the poor could be obscured by a corporate sales strategy which promised the satisfaction of newly created needs. Mass media--TV, radio, and newspapers--could convey the promise that new products would meet these needs. If the desire for a better way of life is coupled with a particularly effective marketing appeal, a consumer is born.

But the motivation behind this campaign for Third World consumers was not just profits. According to international marketing expert Peter Drucker:

What we are engaged in today is essentially a race between the promise of development and the threat of international class war. The economic development is the opportunity of this age, the class war is the danger... Marketing is central in this new situation. For marketing is one of our most potent levers to convert the danger into the opportunity (10).

Corporations now offered the "consumer revolution" to supplant the political variety. They provided the Third World poor with a chance to buy the same products as the middle and upper classes, hoping that this would indefinitely postpone their active discontent. Infant formula--like Coke, Colgate, and Ritz Crackers--was one of these products.

Selling to the Third World Poor

Infant formula sells exceptionally well in the Third World and there are a number of reasons for this. Today's Third World mother often finds herself in situations totally unlike those her mother ever experienced. She may, for instance, work outside the home, listen to the radio or watch TV. These situations can be disorienting, and new values and attitudes must be formed in order to deal with them. Newly-acquired values such as social mobility, as well as a high regard for modernity and medical expertise, make her a particularly vulnerable target for sophisticated formula marketing campaigns. The smiling white babies pictured on the front of formula tins can lead her to think that rich white mothers feed their baby this product and that therefore it must be better.

Going into a hospital to give birth can be an especially frightening situation for a young Third World woman. Since in many countries only a small proportion of women attend the prenatal clinic (if there is one), a mother's maternity stay may be one of the few times in her life that she will go into a hospital. Any products given to her in this environment will seem to carry

medical endorsement. Companies believe, and with good reason, that the product she goes home with is the product she will be "loyal" to. A 1969 study of 120 mothers in Barbados showed that 82% of the mothers given free samples, whether in a hospital or at home, later purchased the same brand. Thirty-two percent of them admitted that they were influenced by the free sample (11). It is, in fact, the mother's very vulnerability which suggests the strategies for a successful sales campaign.

The other target for promotion is medical personnel. They are the direct links to mothers. Indeed, in this case, the new mother is the perfect example of the "captive" market. Although it is the patient who ultimately pays, doctors make the product choices, and the difference in backgrounds of doctor and patient may well lead to an inappropriate choice. As Dr. John Knowles, president of the Rockefeller Foundation, stated in a letter to the Chairman of Bristol-Myers:

I would also note that most often the problem is not a "scientific" one. The problem is poverty and the inadequate home environment which makes the use of prepared formulae so lethal. This the physician is not uniquely qualified to understand. In fact, he may be precisely the most unqualified to understand, since he undoubtedly comes from a different socio-economic background and may have no idea of the home conditions of the poorest mothers of his own society (12).

Many dedicated physicians are faced by a real dilemma when dealing with the promotion efforts of formula companies. Their hospitals and clinics are often woefully short of medical equipment and supplies. Under such circumstances, it may seem harmless, indeed, charitable to agree to give away free samples of infant formula to mothers in exchange for the company's gift of medical stocks or a new nursery. In an affidavit submitted into court in the Bristol-Myers case, one hospital administrator in Malaysia explained: "It is a very corrupting influence. You are always aware that you could have virtually anything you ask for" (13).

These marketing strategies are consciously decided upon and implemented through instructions to sales personnel, milk nurses, and distributors. Note the following extract from American Home Products, detailing selling instructions for 1975:

Selected Doctors

40-50 doctors per territory including 5 or 6 VIP's. These doctors should all be selected on the basis of their known influence on the selection of formula by mothers and by hospital or clinic maternity services.

Sampling

...Maternity services should be given primary allocation of free samples, geared to producing potential sales.

One example of marketing theory in action is the use of fear. "Fear, the Potential Appeal Neglected by Marketing", a 1970 article in Journal of Marketing, explains how the intelligent use of fear messages can have a favorable effect on changing attitudes and behavior (14). The article mentions health fears as being a particularly successful area to exploit. "When breast milk fails..." is a potent message. It plants doubts in the mother's mind--can she take the chance that she won't have enough? As Johanna Dwyer has noted: "Stimulating fears in mothers that their milk may not be adequate or 'weaker' than product X is not only improper, but extremely unfair..." (15).

Milk nurses are a particularly effective sales force. A Jamaican Ministry of Health nutritionist explained recently why this is so in her country. Many poor people rarely see medical personnel; they seldom go to a clinic or hospital. A visit in the home by someone identifiable as a nurse is regarded as a unique privilege. Governments straining to keep up with basic health services can't possibly afford this kind of attention. Even if a mother realizes that a sales strategy is motivating the visit, she will still feel flattered.

In developed and developing countries alike, one of the hospital practices most damaging to breast feeding efforts--and one implicitly supported by company promotional practices--is the separation of mothers and infants directly after birth. During the 12-48 hours of separation, the infants are bottle fed in the nursery. Mothers are sometimes given anti-lactation shots during this period. When a mother is finally reunited with her baby, switching from bottle to breast if not impossible, is made more difficult. She is more likely to give up in the situation since the hospital has given up, too.

Formula companies create a strong receptivity to such practices with their constant offers to set up bottle sterilization and preparation facilities, to equip nurseries, and to provide free supplies of formula. Busy doctors and nurses are influenced to adopt the post-natal separation strategy by the willingness of formula companies to make this approach easier and more "efficient" than breast feeding.

For the companies, these sales strategies have paid off in dollars and cents. Unfortunately no reliable statistics on infant formula sales are publicly available, although sometimes companies have inadvertently revealed the extent of their commitment to the product. World-wide sales of formula are estimated to total around \$1 billion, with Nestlé's figure at roughly \$300-400 million. Nestlé also reportedly controls approximately half of the formula market in developing countries.

American Home Products reported in a letter to the US Securities and Exchange Commission that their sales of infant formula products in the "so-called developing countries" were about 2% of the parent company's total gross sales (16). In relation to the gross sales of their formal subsidiary, Wyeth, this would represent a substantially higher percentage. In any case, 2% of the parent's total sales represents a significant amount of money--approximately \$52 million.

Whatever the sales figures may be at present, they will undoubtedly increase in the future. Bristol-Myers, for instance, has consistently reported success to its shareholders, and in their most recent annual report stated: "Enfamil infant formula achieved significant sales gains in 1976". And these trends, for the other companies as well as for Bristol-Myers, show few signs of abating.

Sales figures, of course, do not tell the full story. Profit rates for infant formulas are also thought to be quite high. According to a 1977 supermarket sales print-out from Brazil, commercial formula enjoyed a 72% profit margin, while all other supermarket products ranged between 15% and 25% (17).

What is at stake for the companies, however, is much more than short-term sales and profits. In the SEC letter noted above, American Home Products continued:

"...the Company has completed in the recent past and presently contemplates, at a cost of many millions of dollars, new or expanded production facilities for infant formula products."

They then list four developed countries in Europe and Asia as well as the Philippines, Colombia and South Africa, as areas for expansion.

The letter goes on to warn that the changes in the American Home's policies and practices, as proposed by a recent church-sponsored shareholder resolution, "would greatly inhibit the sale of products of these new and expanded plants, to the substantial economic detriment of the Company and its stockholders generally." The investment that all of these companies have made in promotion facilities, marketing infrastructures, personnel promotion material, and activities is substantial.

Moreover, inhibiting sales of infant formula could have repercussions on sales of other company products. For both sorts of corporations in the formula market - food and drug - the marketing strategy chosen reflects their overall consumer orientation. Nestlé, primarily a processed-food company, traditionally uses the mass media for promotion. The name "Nestlé" carries with it an entire line of products known throughout the world. For the drug companies, on the other hand, promotion to hospitals, medical institutions, and health personnel is likely to have a rippling effect, reaping sales benefits for their entire line of pharmaceutical equipment and drugs.

The Human Costs of Bottle Feeding

Industry profits are high, but the toll in human lives is enormous. It is impossible, of course, to estimate in dollars and cents the social costs of infant malnutrition related to bottle feeding. If such a figure could be reached, it would have to include the loss of foreign exchange to the country, the burden of formula costs on the individual family, and the waste of human milk.

One must also take account of the cost of caring for a sick or even damaged child. In Kannaneh's 1971 study of Israeli villages, hospitalizations for gastroenteritis for exclusively bottle-fed babies three months of age and over, were twelve times greater than for wholly breast-fed babies of equivalent age (18). The hospitalization costs for the Inuit infants mentioned in the beginning of this article ranged from \$8,885 to \$28,953 per infant (19). What a drain on the already overburdened health care systems in poor countries!

One must also include the costs of additional births, since breast feeding has a significant contraceptive effect. Finally, add the emotional and personal costs to infants, families, and medical personnel. Does the "success" of any marketing strategy justify this?

The International Pediatrics Association thinks not, and in 1975 issued a series of recommendations to encourage breast feeding (20). The section entitled "Curtailling Promotion of Artificial Feeding" reads:

- "1. Sales promotion activities of organizations marketing baby milks and feeding bottles, that run counter to the general intent expressed in this document, must be curtailed by every means available to the profession, including, where necessary and feasible, legislation to control unethical practice.
2. Dissemination of propaganda about artificial feeding and distribution of samples of artificial baby foods in maternity units should be banned immediately."

Recent Marketing Adaptations

Marketing is a science which, by nature, is adaptive. The only strategies that survive are those that work in terms of both profitability and accommodation to the changing socio-political

environment. In the present controversy, the companies are responding to their critics while at the same time attempting to maintain, or even increase, their market shares. The changes that these firms have made to date do not significantly alter the outcome of formula promotion in terms of human life. The following is a critical review of the adaptations which companies have made:

1. Blatant advertising, especially mass-media promotion, made the companies highly vulnerable to criticism. Primary targets were Nestlé, Dumex, Borden, and other food companies. The focus for promotion efforts has consequently switched to the medical profession. This new marketing approach is more sophisticated, less risky, and far more effective in terms of the use of the promotion dollar. Via mass media, everyone heard the message, whether they were potential customers or not. Now marketing focuses more directly on the consumer through the use of health workers.

But it may be jumping the gun to claim that mass media promotion of formula is a thing of the past. In a recent meeting with Nestlé, church groups were told that Nestlé had, since 1975, placed a moratorium on mass media advertising. In response, however, they informed the Nestlé representative about their evidence showing that Nestlé and Dumex had carried on substantial amounts of direct radio and TV advertising in Malaysia in 1976. The meeting mainly served to underscore the need for constant vigilance by non-commercial interests.

In addition, while newspaper ads may be less common than they once were, people are now exposed to ads on the sides of delivery trucks, as in Thailand for Enfamil (21). A poster advertising Enfamil sits above the pharmacy order window in the worker's clinic of a Philippine banana plantation. In a poverty hospital, also in the Philippines, name tags with a prominent "Lactogen" logo, are found on each crib in the nursery. Nestlé wrist labels have also been provided (22). Thus, while the most blatant media ads have been curtailed, direct consumer promotion continues in the hospitals themselves and appears to be sanctioned by the medical authorities.

2. In the past, critics have complained that companies encourage the abandonment of breast feeding. Now the companies agree that bottle feeding to the exclusion of breast feeding is not desirable. They talk about "supplementation". They have adapted to the criticism by revising their line on the appropriate role for infant formulas. But, of course, mixed feeding has been shown to be quite dangerous as well (23). Consuming less contaminated and diluted formula is preferable, one assumes, but it is not the answer. Furthermore, in the name of protecting breast-feeding, the supplementation line in fact undermines it. According to most medical experts, supplementation negatively affects the production of human milk.

3. Critics have also complained about milk nurses and the ethics involved in employing nurses as a company sales force. Again, the companies have adapted. They change the colors of the uniforms, add belts, call them "company representatives", and may even agree to partially alter milk-nurse sales techniques. But the hospital and home visits continue, and the nurses are still drained from the Government health services.

A more significant adaptive technique is that of employing nutritionists and other highly-trained professionals. In Venezuela, for example, there are currently no milk nurses but Nestlé does employ several nutritionists. These nutritionists interact on a regular basis with Ministry of Health, nutrition, and hospital personnel. One Nestlé nutritionist in Caracas appeared to be totally integrated into the health care team at Maternidad Hospital as she made her rounds with the paid hospital staff (24). This type of interface between government and business personnel raises serious ethical questions about the extent to which industry's point of view is institutionalized within government health services.

4. When critics complained that formula was being promoted to the poor, the companies argued that formula is priced above the income of poor people, and is purchased almost exclusively by upper income groups. But they have provided no evidence to confirm this argument. Indeed, there is more than adequate proof that the products are being promoted and sold indiscriminately to mothers who have neither the financial nor the sanitary facilities to use the products safely. Since July 1977 alone, documentation confirms the presence of promotional displays in markets, pharmacies, and grocery stores in the mountain villages of India (25), the barrios of Caracas (26), and the slums of Manila (27).

The following is an excerpt from a recent report from the Philippines (27) showing how promotion to the poor is carried out through the Health system:

1. Hijo Plantation Clinic

On this plantation... we visited the clinic for the workers. It was hot, small and crowded.

The nurse said that all the babies there were given formula. Mead Johnson had practically equipped the entire nursery--supplying the bassinets, scales, the clock and the air-conditioning system (which was not working). Just above the ordering window of the pharmacy inside the clinic was a poster advertising Enfamil.

We visited the homes of the workers and found that none had refrigeration or running water. The only way to get heat for sterilization was by burning wood. We met a woman using Enfamil because "the doctor recommended it." We discovered that to buy one can of infant formula for 9 to 11 pesos would take most if not all of an entire day's wage of a plantation worker. One pound of formula would last about 5 days to a week.

5. In response to these sorts of intense promotion efforts, the critics finally called for regulation of the formula industry. The industry, in turn, responded with "self-regulation", and a proliferation of business codes. There are now several codes of ethics, some more stringent than others. All, however, share two inherent weaknesses:

First, the codes legitimize promotion to the medical profession and characterize the latter as "intermediaries" between the baby food industry and the mother. The first question to ask is, are doctors the best judges of a mother's ability to use formula safely? Dr. Knowles' letter implied not. But more important, perhaps, is the question of the ability of doctors, nurses, and health administrators to be impartial intermediaries, given the desperate shortages of medical personnel in developing countries and the constant pressure exerted on existing workers by the companies.

Competition between the companies only serves to increase the pressure on the health workers. One hospital in Pasay City, Philippines, has established a closed marketing arrangement with three of the major formula manufacturers, in an attempt by the hospital to satisfy the companies and lessen the pressure on pediatricians and nurses. Mead Johnson, Nestlé, and Wyeth are each allowed fifteen days in rotation during which time the hospital uses their formula exclusively. Ninety percent of the hospital's patients, all charity cases, receive free samples of formula (27). Clearly, the basis for formula distribution is neither medical need nor the ability to use formula safely.

Secondly, insuring that the companies will adhere to their self-imposed restrictions is virtually impossible in the absence of regular scrutiny by an independent body. In August 1977, a Mead Johnson milk nurse was interviewed by this author on the ward of the largest public hospital in Jamaica. The milk nurse had in her hand a list of mothers she intended to visit in their homes.

She had copied the names off ward lists. In an interview just two days before, the Chief Medical Officer of Jamaica had explained that government policy prohibited milk nurses from entering public hospitals. The milk nurse's actions were therefore in clear violation of Bristol-Myers' code of ethics that specifically requires cooperation with government health policies, as well as the solicitation of references from medical professionals for all home visits (28).

Clearly, there are limits to self-regulation. Government regulation can also be sidestepped. Even in Jamaica, where the government is more committed than most to reversing the bottle feeding trend, enforcement of government legislation is made difficult by shortages of financial and human resources in the health sector. However, government regulation, if it can be enforced, is probably the best way to stop destructive company practices. But universal government regulation is a long way off.

Conclusion

Stopping the promotion of infant formula products will not, in and of itself, eliminate malnutrition. Achieving such a goal will ultimately require massive changes in the distribution of wealth, land, and power. But that is no reason not to take intermediate steps. Although the shifts in promotion that have taken place thus far represent mere adaptations to a new business climate--changes that are insignificant in terms of human lives--they clearly prove that the formula industry is vulnerable to pressure. If promotion could be eliminated, health care institutions and governments would be freer to develop their own capacity to handle the monumental health problems that face Third World countries.

Just as business can influence public behavior, the public can influence theirs with a counter-strategy. This strategy must include the continuous monitoring and disclosure of corporate activity; cooperation between concerned health professionals, international agencies, and advocacy groups; and the development of an increasingly larger audience of people who share the belief that business must be held accountable for unethical practices, however costly and inconvenient. Dr. Alan Jackson of the Tropical Metabolism Research Unit in Jamaica, when asked why he filed an affidavit in support of the Sisters of the Precious Blood in their lawsuit against Bristol-Myers, replied:

When you spend your time working with children who are malnourished and you see children dying because they are either getting wrong food or food prepared improperly, it has a devastating effect upon you. It's very hard to think that people who are involved in selling, encouraging people to buy infant preparation, can carry on in this kind of a way, and at the same time pretend that they are not involved in the end results, which is malnutrition, malnourished children. And the affidavit we submitted was a simple statement of fact about the children who are admitted here into this ward (29).

References

1. Berg, A., The Nutrition Factor, (Brookings Instit., Washington, D. C., 1973), p. 90-91.
2. Schaefer, C., "Intractable Diarrhea in Baffin Zone Eskimo Infants - possible causes", Memorandum to Zone Director, Baffin Zone, Govt. of Canada (Dec. 1975).
3. For example:
Puffer, R. and Serrano, C., Patterns of Mortality in Childhood, PAHO Scientific Publication No. 262, 1975.

Plank, S.J. and Milanese, M., "Infant Feeding and Infant Mortality in Rural Chile", WHO Bulletin, 1973, 48, p. 203-210.

Kamawati, A.A. and McLaren, D.S., "Failure to Thrive in Lebanon, II., An Investigation of the Causes", Acta Paediat Scand, 62:571-576 (1973).

Kannanah, H., "The Relationship of Bottle Feeding to Malnutrition and Gastroenteritis in a Pre-Industrial Setting", Environmental Child Health, December 1972; p. 302-306.

4. World Health Assembly, Fourteenth Plenary Meeting, May 23, 1974.
5. Warner, A.L., Haiti affidavit submitted into court in the Sisters of the Precious Blood, Inc., vs. Bristol-Myers Company, 76 Civ. 1734, p. 3. All affidavits submitted by the Sisters (et al.) are available to the public. Contact: Leah Margulies, Interfaith Center on Corporate Responsibility, 475 Riverside Drive, New York, NY 10027; (212) 870-2294.
6. Davies, R.B., "Peacefully Working to Conquer the World? The Singer Manufacturing Company in Foreign Markets, 1854-1889", Business History Review, Vol. 63:3, (Autumn 1969).
7. Fogg-Meade, E., "The Role of Advertising in Modern Business", Journ. Pol. Economy, Vol. IX (March 1901).
8. Boorstin, D.J., "Welcome to the Consumption Community", Fortune, Sept. 1, 1967.
9. Bogart, L., "Changing Markets and Media in Latin America", Public Opinion Quarterly (Summer 1959).
10. Drucker, P., "Marketing and Economic Development", Journal of Marketing (January 1958)
11. Carter, O.L., Supplementary Foods in Relation to Nutrition, CFNI Library, Diploma in Community Nutrition Thesis No. 9 (1969).
12. Letter from Dr. John Knowles, Rockefeller Foundation, to Mr. Gavin McBain, Bristol-Myers Company; September 8, 1975. Submitted into court in 76 Civ. 1734 as Exhibit B to Leah Margulies affidavit. See note 5.
13. Muller, A.M., Affidavit submitted into court in 76 Civ. 1734. See note 5.
14. Roy, M.L. and Wilke, W.L., "Fear: The Potential Appeal Neglected by Marketing", Journal of Marketing, Vol. 34, (January 1970).
15. Dwyer, J.T., "The Decline of Breast-Feeding: Sales, Sloth or Society?", UNICEF News, 86:4 (1975).
16. Letter from Mr. Lyle M. Allen, Jr., senior attorney for American Home Products, to Mr. A. Richard Tow, Securities and Exchange Commission, January 27, 1977.
17. Supermercado Moderno, February 1977.
18. Kannanah, op. cit., note 3.
19. Schaefer, op. cit., note 2.

20. International Pediatrics Association, "IPA Seminar on Nutrition", Bulletin Intern. Pediat. Assoc., vol. 4, (October 1975), p. 21.
21. Winikoff, B., Affidavit submitted into court in 76 Civ. 1734. See note 5.
22. Lappe, F.M. and McCallie, E., "Infant Formula Promotion and Use in the Philippines: An Informal, On-Site Report", July 1977. Copies of this report available from: Earthwork, 1499 Potrero, San Francisco, CA. 94110.
23. See, for example, Kannaneh, op. cit., note 3.
24. Margulies, L., "Observations on Bottle Feeding in Venezuela and Jamaica", draft version, September 1977.
25. Roodkowsky, M., "Notes on the Availability of Tinned Formula in the Indian Subcontinent", Summer 1977.
26. Margulies, op. cit., note 24.
27. Lappe and McCallie, op. cit., note 22.
28. Bristol-Myers Company International Division, "Policies and Practices".
29. From an interview with the Canadian Broadcasting Corporation, August 1977.